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LIN, SHAOYANG
YAMAMOTO, TOSHIO
NISHIMURA, ASUKA
TAKASHI, TOMONORI

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gcc ggc ggc gcc ggc gcg gtg ggc ggg ctg atg gac tac gtc gag ggc Ala Gly Gly Ala Gly Ala Val Gly Gly Leu Met Asp Tyr Val Glu Gly 285 290 295	1032

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Gln Pro Pro Ser Pro Ser Ser Ser Ser Ser Ser Ser Phe Phe Ser Asp	
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Leu Tyr Phe Leu Glu Gly Ala Ile Tyr Phe Gly Gly Ala Ala Gly Pro	
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	Arg Met Asp 370
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Val Leu Arg Arg Glu Leu Arg His Glu Arg Gly Phe Val Phe Ala Gln	
375 380 385	
gac gtg gcg tac gcc ggg ttc ctg gac cgc gtc cac gac ggc gag ctc	3529
Asp Val Ala Tyr Ala Gly Phe Leu Asp Arg Val His Asp Gly Glu Leu	
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Lys Leu Arg Ala Ala Gly Leu Trp Asp Val Pro His Pro Trp Leu Asn	
405 410 415 420	
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Leu Phe Leu Pro Arg Ser Gly Val Leu Ala Phe Ala Asp Gly Val Phe	
425 430 435	
cac ggc atc ctc agc cgc acc ccc gcc atg ggc ccc gtc ctc atc tac	3673
His Gly Ile Leu Ser Arg Thr Pro Ala Met Gly Pro Val Leu Ile Tyr	
440 445 450	

ccc atg aac cgc aac aag taataataat aataaacagc ttactacat 3721
 Pro Met Asn Arg Asn Lys
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gtg ttc tac acg gtg ggg atc ctg cgg tcg gcg gcg gcg gcc ggc gac 4238
 Val Phe Tyr Thr Val Gly Ile Leu Arg Ser Ala Ala Ala Ala Gly Asp
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gtg ggg agg ctg gag gag cag aac gac gag atc ttg ggt ttc tgc gag 4286
 Val Gly Arg Leu Glu Glu Gln Asn Asp Glu Ile Leu Gly Phe Cys Glu
 495 500 505

gtg gcc ggg ata gcc tac aag cag tac ctg cct tac tac ggc agc cag 4334
 Val Ala Gly Ile Ala Tyr Lys Gln Tyr Leu Pro Tyr Tyr Gly Ser Gln
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gca gag tgg cag aag cgg cac ttc ggt gcc aag ctc tgg cca aga ttc 4382
 Ala Glu Trp Gln Lys Arg His Phe Gly Ala Lys Leu Trp Pro Arg Phe
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 Val Gln Arg Lys Ser Lys Tyr Asp Pro Lys Ala Ile Leu Ser Arg Gly
 540 545 550

cag ggg att ttc acg tca cca ctc gca tgaaatgaca catgtatgca 4477
 Gln Gly Ile Phe Thr Ser Pro Leu Ala
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 <213> *Oryza sativa*

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<211> 563

<212> PRT

<213> *Oryza sativa*

<400> 6

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Phe Val Lys Ala Thr Ala Pro Pro Pro Trp Pro Pro Ser Ala Ser Ser
          20           25           30

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Ala Ser Phe Leu Asp Asp Leu Gly Asp Leu Gly Ile Ala Pro Leu Ile
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Arg Ala Asp Glu Ala Ala Thr Ala Arg Ala Ser Ala Asp Phe Gly Asn
          50           55           60

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Leu Ser Val Ala Gly Val Gly Ala Pro Arg Leu Ala Ala Ala Val Leu
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Tyr Pro Ser Arg Pro Ala Asp Ile Ala Ala Leu Leu Arg Ala Ser Cys
 85 90 95

Ala Arg Pro Ala Pro Phe Ala Val Ser Ala Arg Gly Cys Gly His Ser
 100 105 110

Val Arg Gly Gln Ala Ser Ala Pro Asp Gly Val Val Val Asp Met Ala
 115 120 125

Ser Leu Gly Arg Leu Gln Gly Gly Gly Ala Arg Arg Leu Ala Val Ser
 130 135 140

Val Glu Gly Arg Tyr Val Asp Ala Gly Gly Glu Gln Leu Trp Val Asp
 145 150 155 160

Val Leu Arg Ala Ser Met Ala His Gly Leu Thr Pro Val Ser Trp Thr
 165 170 175

Asp Tyr Leu His Leu Thr Val Gly Gly Thr Leu Ser Asn Ala Gly Ile
 180 185 190

Ser Gly Gln Ala Phe Arg His Gly Pro Gln Ile Ser Asn Val Leu Glu
 195 200 205

Leu Asp Val Ile Thr Gly Val Gly Glu Met Val Thr Cys Ser Lys Glu
 210 215 220

Lys Ala Pro Asp Leu Phe Asp Ala Val Leu Gly Gly Leu Gly Gln Phe
 225 230 235 240

Gly Val Ile Thr Arg Ala Arg Ile Pro Leu Ala Pro Ala Pro Ala Arg
 245 250 255

Ala Arg Trp Val Arg Phe Val Tyr Thr Thr Ala Ala Ala Met Thr Ala
 260 265 270

Asp Gln Glu Arg Leu Ile Ala Val Asp Arg Ala Gly Gly Ala Gly Ala
 275 280 285

Val Gly Gly Leu Met Asp Tyr Val Glu Gly Ser Val His Leu Asn Gln
 290 295 300

Gly Leu Val Glu Thr Trp Arg Thr Gln Pro Gln Pro Pro Ser Pro Ser
 305 310 315 320

Ser Ser Ser Ser Ser Ser Phe Phe Ser Asp Ala Asp Glu Ala Arg Val
 325 330 335

Ala Ala Leu Ala Lys Glu Ala Gly Gly Val Leu Tyr Phe Leu Glu Gly
 340 345 350

Ala Ile Tyr Phe Gly Gly Ala Ala Gly Pro Ser Ala Ala Asp Val Asp
 355 360 365

Lys Arg Met Asp Val Leu Arg Arg Glu Leu Arg His Glu Arg Gly Phe
 370 375 380

Val Phe Ala Gln Asp Val Ala Tyr Ala Gly Phe Leu Asp Arg Val His
 385 390 395 400

Asp Gly Glu Leu Lys Leu Arg Ala Ala Gly Leu Trp Asp Val Pro His
 405 410 415

Pro Trp Leu Asn Leu Phe Leu Pro Arg Ser Gly Val Leu Ala Phe Ala
 420 425 430

Asp Gly Val Phe His Gly Ile Leu Ser Arg Thr Pro Ala Met Gly Pro
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Val Leu Ile Tyr Pro Met Asn Arg Asn Lys Trp Asp Ser Asn Met Ser
 450 455 460

Ala Val Ile Thr Asp Asp Asp Gly Asp Glu Val Phe Tyr Thr Val Gly
 465 470 475 480

Ile Leu Arg Ser Ala Ala Ala Ala Gly Asp Val Gly Arg Leu Glu Glu
 485 490 495

Gln Asn Asp Glu Ile Leu Gly Phe Cys Glu Val Ala Gly Ile Ala Tyr
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Lys Gln Tyr Leu Pro Tyr Tyr Gly Ser Gln Ala Glu Trp Gln Lys Arg
 515 520 525

His Phe Gly Ala Lys Leu Trp Pro Arg Phe Val Gln Arg Lys Ser Lys
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Tyr Asp Pro Lys Ala Ile Leu Ser Arg Gly Gln Gly Ile Phe Thr Ser
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Pro Leu Ala

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<211> 501

<212> PRT

<213> Arabidopsis thaliana

<400> 7

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Leu Thr Leu Ser Thr Asp Pro Ser Ile Ile Ser Ala Ala Ser His Asp
 35 40 45

Phe Gly Asn Ile Thr Thr Val Thr Pro Gly Gly Val Ile Cys Pro Ser
 50 55 60

Ser Thr Ala Asp Ile Ser Arg Leu Leu Gln Tyr Ala Ala Asn Gly Lys
 65 70 75 80

Ser Thr Phe Gln Val Ala Ala Arg Gly Gln Gly His Ser Leu Asn Gly
 85 90 95

Gln Ala Ser Val Ser Gly Gly Val Ile Val Asn Met Thr Cys Ile Thr
 100 105 110

Asp Val Val Val Ser Lys Asp Lys Lys Tyr Ala Asp Val Ala Ala Gly
 115 120 125

Thr Leu Trp Val Asp Val Leu Lys Lys Thr Ala Glu Lys Gly Val Ser
 130 135 140

Pro Val Ser Trp Thr Asp Tyr Leu His Ile Thr Val Gly Arg Thr Leu
 145 150 155 160

Ser Asn Gly Gly Ile Gly Gly Gln Val Phe Arg Asn Gly Pro Leu Val
 165 170 175

Ser Asn Val Leu Glu Leu Asp Val Ile Thr Gly Lys Gly Glu Met Leu
 180 185 190

Thr Cys Ser Arg Gln Leu Asn Pro Glu Leu Phe Tyr Gly Val Leu Gly
 195 200 205

Gly Leu Gly Gln Phe Gly Ile Ile Thr Arg Ala Arg Ile Val Leu Asp
 210 215 220

His Ala Pro Lys Arg Ala Lys Trp Phe Arg Met Leu Tyr Ser Asp Phe
 225 230 235 240

Thr Thr Phe Thr Lys Asp Gln Glu Arg Leu Ile Ser Met Ala Asn Asp
 245 250 255

Ile Gly Val Asp Tyr Leu Glu Gly Gln Ile Phe Leu Ser Asn Gly Val
 260 265 270

Val Asp Thr Ser Phe Phe Pro Pro Ser Asp Gln Ser Lys Val Ala Asp
 275 280 285

Leu Val Lys Gln His Gly Ile Ile Tyr Val Leu Glu Val Ala Lys Tyr
 290 295 300

Tyr Asp Asp Pro Asn Leu Pro Ile Ile Ser Lys Val Ile Asp Thr Leu
 305 310 315 320

Thr Lys Thr Leu Ser Tyr Leu Pro Gly Phe Ile Ser Met His Asp Val
 325 330 335

Ala Tyr Phe Asp Phe Leu Asn Arg Val His Val Glu Glu Asn Lys Leu
 340 345 350

Arg Ser Leu Gly Leu Trp Glu Leu Pro His Pro Trp Leu Asn Leu Tyr
 355 360 365

Val Pro Lys Ser Arg Ile Leu Asp Phe His Asn Gly Val Val Lys Asp
 370 375 380

Ile Leu Leu Lys Gln Lys Ser Ala Ser Gly Leu Ala Leu Leu Tyr Pro
 385 390 395 400

Thr Asn Arg Asn Lys Trp Asp Asn Arg Met Ser Ala Met Ile Pro Glu
 405 410 415

Ile Asp Glu Asp Val Ile Tyr Ile Ile Gly Leu Leu Gln Ser Ala Thr
 420 425 430

Pro Lys Asp Leu Pro Glu Val Glu Ser Val Asn Glu Lys Ile Ile Arg
 435 440 445

Phe Cys Lys Asp Ser Gly Ile Lys Ile Lys Gln Tyr Leu Met His Tyr
 450 455 460

Thr Ser Lys Glu Asp Trp Ile Glu His Phe Gly Ser Lys Trp Asp Asp
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Phe Ser Lys Arg Lys Asp Leu Phe Asp Pro Lys Lys Leu Leu Ser Pro
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Gly Gln Asp Ile Phe
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<210> 8

<211> 523

<212> PRT

<213> Arabidopsis thaliana

<400> 8

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Pro Gln Pro Trp Asn Ile Leu Ser His Asn Glu Phe Ala Gly Lys Leu
 35 40 45

Thr Ser Ser Ser Ser Ser Val Glu Ser Ala Ala Thr Asp Phe Gly His
 50 55 60

Val	Thr	Lys	Ile	Phe	Pro	Ser	Ala	Val	Leu	Ile	Pro	Ser	Ser	Val	Glu	65	70	75	80
Asp	Ile	Thr	Asp	Leu	Ile	Lys	Leu	Ser	Phe	Asp	Ser	Gln	Leu	Ser	Phe	85	90	95	
Pro	Leu	Ala	Ala	Arg	Gly	His	Gly	His	Ser	His	Arg	Gly	Gln	Ala	Ser	100	105	110	
Ala	Lys	Asp	Gly	Val	Val	Val	Asn	Met	Arg	Ser	Met	Val	Asn	Arg	Asp	115	120	125	
Arg	Gly	Ile	Lys	Val	Ser	Arg	Thr	Cys	Leu	Tyr	Val	Asp	Val	Asp	Ala	130	135	140	
Ala	Trp	Leu	Trp	Ile	Glu	Val	Leu	Asn	Lys	Thr	Leu	Glu	Leu	Gly	Leu	145	150	155	160
Thr	Pro	Val	Ser	Trp	Thr	Asp	Tyr	Leu	Tyr	Leu	Thr	Val	Gly	Gly	Thr	165	170	175	
Leu	Ser	Asn	Gly	Gly	Ile	Ser	Gly	Gln	Thr	Phe	Arg	Tyr	Gly	Pro	Gln	180	185	190	
Ile	Thr	Asn	Val	Leu	Glu	Met	Asp	Val	Ile	Thr	Gly	Lys	Gly	Glu	Ile	195	200	205	
Ala	Thr	Cys	Ser	Lys	Asp	Met	Asn	Ser	Asp	Leu	Phe	Phe	Ala	Val	Leu	210	215	220	
Gly	Gly	Leu	Gly	Gln	Phe	Gly	Ile	Ile	Thr	Arg	Ala	Arg	Ile	Lys	Leu	225	230	235	240
Glu	Val	Ala	Pro	Lys	Arg	Ala	Lys	Trp	Leu	Arg	Phe	Leu	Tyr	Ile	Asp	245	250	255	
Phe	Ser	Glu	Phe	Thr	Arg	Asp	Gln	Glu	Arg	Val	Ile	Ser	Lys	Thr	Asp	260	265	270	
Gly	Val	Asp	Phe	Leu	Glu	Gly	Ser	Ile	Met	Val	Asp	His	Gly	Pro	Pro	275	280	285	

Asp Asn Trp Arg Ser Thr Tyr Tyr Pro Pro Ser Asp His Leu Arg Ile
 290 295 300

Ala Ser Met Val Lys Arg His Arg Val Ile Tyr Cys Leu Glu Val Val
 305 310 315 320

Lys Tyr Tyr Asp Glu Thr Ser Gln Tyr Thr Val Asn Glu Glu Met Glu
 325 330 335

Glu Leu Ser Asp Ser Leu Asn His Val Arg Gly Phe Met Tyr Glu Lys
 340 345 350

Asp Val Thr Tyr Met Asp Phe Leu Asn Arg Val Arg Thr Gly Glu Leu
 355 360 365

Asn Leu Lys Ser Lys Gly Gln Trp Asp Val Pro His Pro Trp Leu Asn
 370 375 380

Leu Phe Val Pro Lys Thr Gln Ile Ser Lys Phe Asp Asp Gly Val Phe
 385 390 395 400

Lys Gly Ile Ile Leu Arg Asn Asn Ile Thr Ser Gly Pro Val Leu Val
 405 410 415

Tyr Pro Met Asn Arg Asn Lys Trp Asn Asp Arg Met Ser Ala Ala Ile
 420 425 430

Pro Glu Glu Asp Val Phe Tyr Ala Val Gly Phe Leu Arg Ser Ala Gly
 435 440 445

Phe Asp Asn Trp Glu Ala Phe Asp Gln Glu Asn Met Glu Ile Leu Lys
 450 455 460

Phe Cys Glu Asp Ala Asn Met Gly Val Ile Gln Tyr Leu Pro Tyr His
 465 470 475 480

Ser Ser Gln Glu Gly Trp Val Arg His Phe Gly Pro Arg Trp Asn Ile
 485 490 495

Phe Val Glu Arg Lys Tyr Lys Tyr Asp Pro Lys Met Ile Leu Ser Pro
 500 505 510

Gly Gln Asn Ile Phe Gln Lys Ile Asn Ser Ser
 515 520

<210> 9

<211> 524

<212> PRT

<213> Arabidopsis thaliana

<400> 9

Met Thr Asn Thr Leu Cys Leu Ser Leu Ile Thr Leu Ile Thr Phe Phe
 1 5 10 15

Ile Ser Leu Thr Pro Thr Leu Ile Lys Ser Asp Glu Gly Ile Asp Val
 20 25 30

Phe Leu Pro Ile Ser Leu Asn Leu Thr Val Leu Thr Asp Pro Phe Ser
 35 40 45

Ile Ser Ala Ala Ser His Asp Phe Gly Asn Ile Thr Asp Glu Asn Pro
 50 55 60

Gly Ala Val Leu Cys Pro Ser Ser Thr Thr Glu Val Ala Arg Leu Leu
 65 70 75 80

Arg Phe Ala Asn Gly Gly Phe Ser Tyr Asn Lys Gly Ser Thr Ser Pro
 85 90 95

Ala Ser Thr Phe Lys Val Ala Ala Arg Gly Gln Gly His Ser Leu Arg
 100 105 110

Gly Gln Ala Ser Ala Pro Gly Gly Val Val Val Asn Met Thr Cys Leu
 115 120 125

Ala Met Ala Ala Lys Pro Ala Ala Val Val Ile Ser Ala Asp Gly Thr
 130 135 140

Tyr Ala Asp Val Ala Ala Gly Thr Met Trp Val Asp Val Leu Lys Ala
 145 150 155 160

Ala Val Asp Arg Gly Val Ser Pro Val Thr Trp Thr Asp Tyr Leu Tyr
 165 170 175

Leu Ser Val Gly Gly Thr Leu Ser Asn Ala Gly Ile Gly Gly Gln Thr
 180 185 190

Phe Arg His Gly Pro Gln Ile Ser Asn Val His Glu Leu Asp Val Ile
 195 200 205

Thr Gly Lys Gly Glu Met Met Thr Cys Ser Pro Lys Leu Asn Pro Glu
 210 215 220

Leu Phe Tyr Gly Val Leu Gly Gly Leu Gly Gln Phe Gly Ile Ile Thr
 225 230 235 240

Arg Ala Arg Ile Ala Leu Asp His Ala Pro Thr Arg Val Lys Trp Ser
 245 250 255

Arg Ile Leu Tyr Ser Asp Phe Ser Ala Phe Lys Arg Asp Gln Glu Arg
 260 265 270

Leu Ile Ser Met Thr Asn Asp Leu Gly Val Asp Phe Leu Glu Gly Gln
 275 280 285

Leu Met Met Ser Asn Gly Phe Val Asp Thr Ser Phe Phe Pro Leu Ser
 290 295 300

Asp Gln Thr Arg Val Ala Ser Leu Val Asn Asp His Arg Ile Ile Tyr
 305 310 315 320

Val Leu Glu Val Ala Lys Tyr Tyr Asp Arg Thr Thr Leu Pro Ile Ile
 325 330 335

Asp Gln Val Ile Asp Thr Leu Ser Arg Thr Leu Gly Phe Ala Pro Gly
 340 345 350

Phe Met Phe Val Gln Asp Val Pro Tyr Phe Asp Phe Leu Asn Arg Val
 355 360 365

Arg Asn Glu Glu Asp Lys Leu Arg Ser Leu Gly Leu Trp Glu Val Pro
 370 375 380

His Pro Trp Leu Asn Ile Phe Val Pro Gly Ser Arg Ile Gln Asp Phe
 385 390 395 400

His Asp Gly Val Ile Asn Gly Leu Leu Leu Asn Gln Thr Ser Thr Ser
 405 410 415

Gly Val Thr Leu Phe Tyr Pro Thr Asn Arg Asn Lys Trp Asn Asn Arg
 420 425 430

Met Ser Thr Met Thr Pro Asp Glu Asp Val Phe Tyr Val Ile Gly Leu
 435 440 445

Leu Gln Ser Ala Gly Gly Ser Gln Asn Trp Gln Glu Leu Glu Asn Leu
 450 455 460

Asn Asp Lys Val Ile Gln Phe Cys Glu Asn Ser Gly Ile Lys Ile Lys
 465 470 475 480

Glu Tyr Leu Met His Tyr Thr Arg Lys Glu Asp Trp Val Lys His Phe
 485 490 495

Gly Pro Lys Trp Asp Asp Phe Leu Arg Lys Lys Ile Met Phe Asp Pro
 500 505 510

Lys Arg Leu Leu Ser Pro Gly Gln Asp Ile Phe Asn
 515 520

<210> 10

<211> 533

<212> PRT

<213> Oryza sativa

<400> 10

Met Ala Ala Ile Tyr Leu Leu Ile Ala Ala Leu Ile Ala Ser Ser His
 1 5 10 15

Ala Leu Ala Ala His Gly Ala Gly Gly Gly Val Pro Leu Ala Ala Ala
 20 25 30

Ala Pro Leu Pro Phe Pro Gly Asp Leu Ala Ala Ser Gly Lys Leu Arg
 35 40 45

Thr Asp Pro Asn Ala Thr Val Pro Ala Ser Met Asp Phe Gly Asn Ile
 50 55 60

Thr Ala Ala Leu Pro Ala Ala Val Leu Phe Pro Gly Ser Pro Gly Asp
 65 70 75 80

Val Ala Glu Leu Leu Arg Ala Ala Tyr Ala Ala Pro Gly Arg Pro Phe
 85 90 95

Thr Val Ser Phe Arg Gly Arg Gly His Ser Thr Met Gly Gln Ala Leu
 100 105 110

Ala Ala Gly Gly Val Val Val His Met Gln Ser Met Gly Gly Gly Gly
 115 120 125

Ala Pro Arg Ile Asn Val Ser Ala Asp Gly Ala Tyr Val Asp Ala Gly
 130 135 140

Gly Glu Gln Leu Trp Val Asp Val Leu Arg Ala Ala Leu Ala Arg Gly
 145 150 155 160

Val Ala Pro Arg Ser Trp Thr Asp Tyr Leu His Leu Thr Val Gly Gly
 165 170 175

Thr Leu Ser Asn Ala Gly Val Ser Gly Gln Thr Tyr Arg His Gly Pro
 180 185 190

Gln Ile Ser Asn Val Leu Glu Leu Asp Val Ile Thr Gly His Gly Glu
 195 200 205

Thr Val Thr Cys Ser Lys Ala Val Asn Ser Asp Leu Phe Asp Ala Val
 210 215 220

Leu Gly Gly Leu Gly Gln Phe Gly Val Ile Thr Arg Ala Arg Val Ala
 225 230 235 240

Val Glu Pro Ala Pro Ala Arg Ala Arg Trp Val Arg Leu Val Tyr Ala
 245 250 255

Asp Phe Ala Ala Phe Ser Ala Asp Gln Glu Arg Leu Val Ala Ala Arg
 260 265 270

Pro Asp Gly Ser His Gly Pro Trp Ser Tyr Val Glu Gly Ala Val Tyr
 275 280 285

Leu Ala Gly Arg Gly Leu Ala Val Ala Leu Lys Ser Ser Gly Gly Phe
 290 295 300

Phe Ser Asp Ala Asp Ala Ala Arg Val Val Ala Leu Ala Ala Ala Arg
 305 310 315 320

Asn Ala Thr Ala Val Tyr Ser Ile Glu Ala Thr Leu Asn Tyr Ala Ala
 325 330 335

Asn Ala Thr Pro Ser Ser Val Asp Ala Ala Val Ala Ala Ala Leu Gly
 340 345 350

Asp Ala Leu His Phe Glu Glu Gly Phe Ser Phe Ser Arg Asp Val Thr
 355 360 365

Tyr Glu Glu Phe Leu Asp Arg Val Tyr Gly Glu Glu Glu Ala Leu Glu
 370 375 380

Lys Ala Gly Leu Trp Arg Val Pro His Pro Trp Leu Asn Leu Phe Val
 385 390 395 400

Pro Gly Ser Arg Ile Ala Asp Phe Asp Arg Gly Val Phe Lys Gly Ile
 405 410 415

Leu Gln Thr Ala Thr Asp Ile Ala Gly Pro Leu Ile Ile Tyr Pro Val
 420 425 430

Asn Lys Ser Lys Trp Asp Ala Ala Met Ser Ala Val Thr Pro Glu Gly
 435 440 445

Glu Glu Glu Val Phe Tyr Val Val Ser Leu Leu Phe Ser Ala Val Ala
 450 455 460

Asn Asp Val Ala Ala Leu Glu Ala Gln Asn Arg Arg Ile Leu Arg Phe
 465 470 475 480

Cys Asp Leu Ala Gly Ile Gly Tyr Lys Ala Tyr Leu Ala His Tyr Asp
 485 490 495

Ser Arg Gly Asp Trp Val Arg His Phe Gly Ala Lys Trp Asp Arg Phe
 500 505 510

Val Gln Arg Lys Asp Lys Tyr Asp Pro Lys Lys Leu Leu Ser Pro Gly
 515 520 525

Gln Asp Ile Phe Asn
 530

<210> 11
 <211> 558
 <212> PRT
 <213> Oryza sativa

<400> 11

Met Ala Val Leu Leu Met Leu Asn Cys Phe Val Lys Ala Thr Ala Pro
 1 5 10 15

Pro Pro Trp Pro Pro Ser Ala Ser Ser Ala Ser Phe Leu Asp Asp Leu
 20 25 30

Gly Asp Leu Gly Ile Ala Pro Leu Ile Arg Ala Asp Glu Ala Gly Thr
 35 40 45

Ala Arg Ala Ser Ala Asp Phe Gly Asn Leu Ser Val Ala Gly Val Gly
 50 55 60

Ala Pro Arg Leu Ala Ala Ala Ala Val Leu Tyr Pro Ser Arg Pro
 65 70 75 80

Ala Asp Ile Ala Ala Leu Leu Arg Ala Ser Cys Ala Arg Pro Ala Pro
 85 90 95

Phe Ala Val Ser Ala Arg Gly Cys Gly His Ser Val His Gly Gln Ala
 100 105 110

Ser Ala Pro Asp Gly Val Val Val Asp Met Ala Ser Leu Gly Arg Leu
 115 120 125

Gln Gly Gly Gly Ala Arg Arg Leu Ala Val Ser Val Glu Gly Arg Tyr
 130 135 140

Val Asp Ala Gly Gly Glu Gln Leu Trp Val Asp Val Leu Arg Ala Ser
 145 150 155 160

Met Ala His Gly Leu Thr Pro Val Ser Trp Thr Asp Tyr Leu His Leu
 165 170 175

Thr Val Gly Gly Thr Leu Ser Asn Ala Gly Ile Ser Gly Gln Ala Phe
 180 185 190

Arg His Gly Pro Gln Ile Ser Asn Val Leu Glu Leu Asp Val Ile Thr
 195 200 205

Gly Val Gly Glu Met Val Thr Cys Ser Lys Glu Lys Ala Pro Asp Leu
 210 215 220

Phe Asp Ala Val Leu Gly Gly Leu Gly Gln Phe Gly Val Ile Thr Arg
 225 230 235 240

Ala Arg Ile Pro Leu Ala Pro Ala Pro Ala Arg Ala Arg Trp Val Arg
 245 250 255

Phe Val Tyr Thr Thr Ala Ala Ala Met Thr Ala Asp Gln Glu Arg Leu
 260 265 270

Ile Ala Val Asp Arg Ala Gly Gly Ala Gly Ala Val Gly Gly Leu Met
 275 280 285

Asp Tyr Val Glu Gly Ser Val His Leu Asn Gln Gly Leu Val Glu Thr
 290 295 300

Trp Arg Thr Gln Pro Gln Pro Pro Ser Pro Ser Ser Ser Ser Ser Ser
 305 310 315 320

Ser Phe Phe Ser Asp Ala Asp Glu Ala Arg Val Ala Ala Leu Ala Lys
 325 330 335

Glu Ala Gly Gly Val Leu Tyr Phe Leu Glu Gly Ala Ile Tyr Phe Gly
 340 345 350

Gly Ala Ala Gly Pro Ser Ala Ala Asp Val Asp Lys Arg Met Asp Val
 355 360 365

Leu Arg Arg Glu Leu Arg His Glu Arg Gly Phe Val Phe Ala Gln Asp
 370 375 380

Val Ala Tyr Ala Gly Phe Leu Asp Arg Val His Asp Gly Glu Leu Lys
 385 390 395 400

Leu Arg Ala Ala Gly Leu Trp Asp Val Pro His Pro Trp Leu Asn Leu
 405 410 415

Phe Leu Pro Arg Ser Gly Val Leu Ala Phe Ala Asp Gly Val Phe His
 420 425 430

Gly Ile Leu Ser Arg Thr Pro Ala Met Gly Pro Val Leu Ile Tyr Pro
 435 440 445

Met Asn Arg Asn Lys Trp Asp Ser Asn Met Ser Ala Val Ile Thr Asp
 450 455 460

Asp Asp Gly Asp Glu Val Phe Tyr Thr Val Gly Ile Leu Arg Ser Ala
 465 470 475 480

Ala Ala Ala Gly Asp Val Gly Arg Leu Glu Glu Gln Asn Asp Glu Ile
 485 490 495

Leu Gly Phe Cys Glu Val Ala Gly Ile Ala Tyr Lys Gln Tyr Leu Pro
 500 505 510

Tyr Tyr Gly Ser Gln Ala Glu Trp Gln Lys Arg His Phe Gly Ala Asn
 515 520 525

Leu Trp Pro Arg Phe Val Gln Arg Lys Ser Lys Tyr Asp Pro Lys Ala
 530 535 540

Ile Leu Ser Arg Gly Gln Gly Ile Phe Thr Ser Pro Leu Ala
 545 550 555

<210> 12

<211> 527

<212> PRT

<213> Oryza sativa

<400> 12

Met Ala Ala Arg Cys Ser Ile Ala Phe Met Val Met Ala Ser Cys Leu
 1 5 10 15

Ser Val Val Val Ser Gly Gly Leu Pro Gly Asp Leu Phe Ala His Ser
 20 25 30

Val Ala Ser Lys Leu Arg Val Asp Arg Asp Thr Thr Ala Arg Ala Ser
 35 40 45

Ser Asp Phe Gly Arg Ile Val Ala Ala Ala Pro Glu Ala Val Leu His
 50 55 60

Pro Ala Thr Pro Ala Glu Ile Ala Glu Leu Val Arg Phe Ser Ala Ser
 65 70 75 80

Ser Pro Ser Pro Phe Pro Val Ala Pro Arg Gly Gln Gly His Ser Ala
 85 90 95

Arg Gly Gln Ser Leu Ala Pro Gly Gly Val Val Val Asp Met Arg Ala
 100 105 110

Leu Ala Ala Arg Arg Gly Arg Val Asn Val Ser Ala Gly Gly Ala Gly
 115 120 125

Ala Ala Pro Tyr Val Asp Ala Gly Gly Glu Gln Leu Trp Ala Asp Val
 130 135 140

Leu Arg Ala Thr Leu Glu His Gly Leu Ala Pro Arg Val Trp Thr Asp
 145 150 155 160

Tyr Leu Arg Ile Thr Val Ala Gly Thr Leu Ser Asn Ala Gly Ile Gly
 165 170 175

Gly Gln Ala Phe Arg His Gly Pro Gln Ile Ala Asn Val Leu Glu Leu
 180 185 190

Asp Val Ile Thr Gly Arg Gly Asp Met Val Thr Cys Ser Arg Asp Lys
 195 200 205

Glu Pro Asp Leu Phe Phe Ala Val Leu Gly Gly Leu Gly Gln Phe Gly
 210 215 220

Ile Ile Thr Arg Ala Arg Ile Gly Leu Glu Pro Ala Pro Lys Arg Val
 225 230 235 240

Arg Trp Val Arg Leu Ala Tyr Ser Asp Val Val Thr Phe Thr Arg Asp
 245 250 255

Gln Glu Leu Leu Ile Ser Lys Arg Ala Ser Glu Ala Gly Phe Asp Tyr
 260 265 270

Val Glu Gly Gln Val Gln Leu Asn Arg Thr Leu Thr Glu Gly Pro Lys
 275 280 285

Ser Thr Pro Phe Phe Ser Arg Phe Asp Ile Asp Arg Leu Ala Gly Leu
 290 295 300

Ala Ser Glu Ser Val Ser Gly Val Ile Tyr Phe Ile Glu Gly Ala Met
 305 310 315 320

Tyr Tyr Asn Glu Ser Thr Thr Ala Ser Val Asp Gln Lys Leu Thr Ser
 325 330 335

Val Leu Glu Gln Leu Ser Phe Asp Lys Gly Phe Val Phe Thr Lys Asp
 340 345 350

Val Ser Tyr Val Gln Phe Leu Asp Arg Val Arg Glu Glu Glu Arg Ile
 355 360 365

Leu Arg Ser Ile Gly Met Trp Asp Val Pro His Pro Trp Leu Asn Leu
 370 375 380

Phe Val Pro Gln Ser Arg Ile Leu Asp Phe Asp Thr Gly Val Leu Lys
 385 390 395 400

Gly Val Phe Val Gly Ala Asn Pro Val Gly Val Ile Leu Met Tyr Pro
 405 410 415

Met Asn Arg Asn Met Trp Asp Asp Arg Met Thr Ala Val Ser Gly Asn
 420 425 430

Asp Asp Met Phe Tyr Val Val Gly Leu Leu Arg Ser Ala Val Val Pro
 435 440 445

Gly Asp Val Glu Arg Leu Glu Arg Glu Asn Glu Ala Val Leu Ala Phe
 450 455 460

Cys Asp Asn Glu Gly Ile Gly Cys Lys Gln Tyr Leu Pro His Tyr Ala
 465 470 475 480

Ser Gln Asp Gly Trp Arg Ser His Phe Gly Ala Lys Trp Ser Arg Val
 485 490 495

Thr Glu Leu Lys Val Lys Tyr Asp Pro Tyr Gly Ile Leu Ser Pro Gly
 500 505 510

Gln Arg Ile Phe Ser Ser Leu Thr Pro Met Ala Leu Val Ala Met
 515 520 525

<210> 13
 <211> 524
 <212> PRT
 <213> Oryza sativa

<400> 13
 Met Ala Ala Arg Cys Ser Ile Ala Phe Met Ile Met Ala Ser Cys Leu
 1 5 10 15
 Ser Val Val Val Ser Gly Gly Leu Pro Gly Asp Leu Phe Ala Leu Ser
 20 25 30
 Val Ala Ser Lys Leu Arg Val Asp Arg Asn Ser Thr Ala Arg Ala Ser
 35 40 45
 Ser Asp Phe Gly Arg Ile Val Ala Ala Ala Pro Glu Ala Val Leu His
 50 55 60
 Pro Ala Thr Pro Ala Glu Ile Ala Glu Leu Val Arg Phe Ser Ala Ser
 65 70 75 80
 Ser Pro Ser Pro Phe Pro Val Ala Pro Arg Gly Gln Gly His Ser Ala
 85 90 95
 Arg Gly Gln Ser Leu Ala Pro Gly Gly Val Val Val Asp Met Arg Ala
 100 105 110
 Leu Ala Ser Arg Arg Gly Arg Val Asn Val Ser Ala Gly Ala Ala Pro
 115 120 125
 Tyr Val Asp Ala Gly Gly Glu Gln Leu Trp Ala Asp Val Leu Arg Ala
 130 135 140
 Thr Leu Glu His Gly Leu Ala Pro Arg Val Trp Thr Asp Tyr Leu Arg
 145 150 155 160
 Ile Thr Val Ala Gly Thr Leu Ser Asn Ala Gly Ile Gly Gly Gln Ala
 165 170 175
 Phe Arg His Gly Pro Gln Ile Ala Asn Val Leu Glu Leu Asp Val Ile
 180 185 190
 Thr Gly Thr Gly Asp Met Val Thr Cys Ser Arg Asp Lys Asp Ser Asp
 195 200 205

Leu Phe Phe Ala Val Leu Gly Gly Leu Gly Gln Phe Gly Ile Ile Thr
 210 215 220

Arg Ala Arg Ile Gly Leu Met Pro Ala Pro Lys Arg Val Arg Trp Val
 225 230 235 240

Arg Leu Ala Tyr Ser Asp Val Ala Thr Phe Thr Lys Asp Gln Glu Leu
 245 250 255

Leu Ile Ser Lys Arg Ala Ser Glu Ala Gly Phe Asp Tyr Val Glu Gly
 260 265 270

Gln Val Gln Leu Asn Arg Thr Leu Thr Glu Gly Pro Lys Ser Thr Pro
 275 280 285

Phe Phe Ser Ser Ser Asp Ile Gly Arg Leu Ala Gly Leu Ala Ser Lys
 290 295 300

Ser Val Ser Gly Val Ile Tyr Val Ile Glu Gly Thr Met Tyr Tyr Asn
 305 310 315 320

Glu Ser Thr Ser Thr Thr Met Asp Gln Lys Leu Glu Ser Ile Leu Gly
 325 330 335

Gln Leu Ser Phe Glu Glu Gly Phe Val Phe Thr Lys Asp Val Arg Tyr
 340 345 350

Val Gln Phe Leu Asp Arg Val Arg Glu Glu Glu Arg Val Leu Arg Ser
 355 360 365

Ile Gly Met Trp Asp Val Pro His Pro Trp Leu Asn Leu Phe Val Pro
 370 375 380

Arg Ser Arg Ile Leu Asp Phe Asp Ala Gly Val Phe Lys Gly Val Phe
 385 390 395 400

Ala Gly Ala Asn Pro Val Gly Val Ile Leu Met Tyr Pro Met Asn Thr
 405 410 415

Asn Met Trp Asp Asp Cys Met Met Ala Val Ala Ser Asp Asp Asp Val
 420 425 430

Phe Tyr Ala Val Gly Leu Leu Arg Ser Ala Ala Val Ile Gly Asp Val
 435 440 445

Glu Arg Leu Glu Lys Glu Asn Glu Ala Val Leu Ala Phe Cys His Asn
 450 455 460

Glu Asp Ile Gly Cys Lys Gln Tyr Leu Pro Tyr Tyr Thr Ser Gln Asp
 465 470 475 480

Gly Trp Gln Arg His Phe Gly Ala Lys Trp Ser Arg Val Ala Asp Leu
 485 490 495

Lys Ala Lys Tyr Asp Pro His Arg Ile Leu Ser Pro Gly Gln Arg Ile
 500 505 510

Phe Ser Ser Pro Ala Ser Met Val Val Val Ser Met
 515 520

<210> 14

<211> 528

<212> PRT

<213> Oryza sativa

<400> 14

Met Pro Arg Ala Gln Leu Thr Thr Phe Leu Ile Val Thr Ser Phe Leu
 1 5 10 15

Ser Thr Val Pro Tyr Leu Arg Ala Pro Val His Gly Gly Val Leu Thr
 20 25 30

Ser Tyr Asp Val Ser Ser Leu Asp Ile Met Ser Lys Ile His Thr Asp
 35 40 45

His Asp Ala Thr Thr Lys Ala Ser Ser Asp Phe Gly His Ile Val His
 50 55 60

Ala Thr Pro Asn Gly Val Phe Arg Pro Thr Phe Pro Ala Asp Ile Ala
 65 70 75 80

Ala Leu Ile Arg Leu Ser Leu Ser Gln Pro Thr Pro Phe Thr Val Ala
 85 90 95

Pro Arg Gly Lys Gly His Ser Ser Arg Gly Gln Ala Phe Ala Pro Gly
 100 105 110

Gly Ile Val Val Asp Met Ser Ala Leu Gly Asp His Gly His His Thr
 115 120 125

Ser His Arg Ile Asp Val Ser Val Asp Arg Met Tyr Val Asp Ala Gly
 130 135 140

Gly Glu Gln Leu Trp Ile Asp Val Leu His Thr Ala Leu Lys His Gly
 145 150 155 160

Leu Thr Pro Arg Val Trp Thr Asp Tyr Leu Arg Ile Thr Val Gly Gly
 165 170 175

Thr Leu Ser Asn Ala Gly Ile Gly Gly Gln Ala Phe Arg His Gly Pro
 180 185 190

Gln Ile Ser Asn Val His Glu Leu Asp Val Val Thr Gly Gly Leu Gly
 195 200 205

Gln Phe Gly Val Ile Thr Arg Ala Arg Ile Arg Leu Glu Pro Ala Pro
 210 215 220

Lys Arg Val Lys Trp Val Arg Ile Ala Tyr Ser Asp Val His Pro Phe
 225 230 235 240

Thr Thr Asp Gln Glu Leu Leu Ile Ser Lys Trp Ala Ser Gly Ser Gly
 245 250 255

Phe Asp Tyr Val Glu Gly Gln Val Gln Leu Asn Arg Thr Leu Thr Gln
 260 265 270

Gly Arg Arg Ser Ser Ser Phe Phe Ser Ala Thr Asp Leu Ala Arg Leu
 275 280 285

Thr Gly Leu Ala Ile Asp Thr Gly Ser Val Ala Ile Tyr Tyr Ile Glu
 290 295 300

Gly Ala Met Tyr Tyr Asp Asp Asn Thr Ala Ala Ser Val Asp Gln Lys
 305 310 315 320

Leu Asp Ala Leu Leu Glu Glu Leu Ser Phe Val Arg Gly Phe Val Phe
 325 330 335

Val Arg Asp Ala Ser Tyr Val Glu Phe Leu Asp Arg Val Gly Arg Glu
 340 345 350

Glu Gln Asn Leu Arg Ser Ala Gly Ala Trp Asp Val Pro His Pro Trp
 355 360 365

Leu Asn Leu Phe Val Pro Arg Ser Arg Ile Leu His Phe Asp Ala Ala
 370 375 380

Val Phe Lys Gly Ile Leu Arg Asn Ala Asn Pro Val Gly Leu Ile Leu
 385 390 395 400

Met Tyr Pro Met Asn Lys Asp Met Trp Asp Asp Arg Met Thr Ala Met
 405 410 415

Thr Pro Asp Glu Asp Val Phe Tyr Ala Val Gly Leu Leu Arg Ser Ala
 420 425 430

Val Ala Gly Gly Ser Gly Gly Asp Val Glu Gln Leu Glu Arg Glu Asn
 435 440 445

Ala Ala Val Leu Glu Leu Cys Asp Leu Ala Gly Gly Gly Ile Gly Cys
 450 455 460

Arg Gln Tyr Leu Pro His His Ala Ser Arg Asp Gly Trp Arg Arg His
 465 470 475 480

Phe Gly Ala Lys Trp Gly Arg Val Ala Asp Leu Lys Ala Arg Tyr Asp
 485 490 495

Pro Arg Ala Ile Leu Ser Pro Gly Gln Gly Ile Phe Pro Pro Pro Pro
 500 505 510

Pro Pro Ser Pro Pro Pro Pro Ala Ala Gly Glu Pro Ile Thr Ala Ser
 515 520 525